

Patent claims

Add A1

1. Method for producing an ultraphobic surface on metal, glass, ceramic or plastic or a composite of metal and plastic as support material, characterized in that the surface of the support material is intensively roughened with a fluid jet containing solid blasting agents over a relatively long period, the blasting agent having a particle size of $< 200 \mu\text{m}$, optionally coated with an adhesion promoter layer and then provided with a hydrophobic, in particular an oleophobic, coating.
2. Method according to Claim 1, characterized in that the blasting agent has a particle size of $< 130 \mu\text{m}$.
3. Method according to one of Claims 1 or 2, characterized in that the blasting agent is a metal oxide, preferably corundum, particularly preferably crude corundum with sharp-edged particles.
4. Method according to one of Claims 1 to 3, characterized in that the support material is roughened using a fluid jet at a blasting pressure of from 3 to 7 bar and at a distance from the die head to the surface of from 1 to 3 cm.
5. Method according to Claim 4, characterized in that the treatment time of the roughening is from about 0.1 to 10 min/cm².
6. Method according to one of Claims 1 to 5, characterized in that, after the roughening, the surface is coated with a thin layer of noble metal as adhesion promoter layer, preferably a gold layer, in particular by precipitation of a 10 to 100 nm-thick layer.
7. Ultraphobic surface obtained by a method according to one of Claims 1 to 6.

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8. Material or construction material having an ultraphobic surface according to Claim 7.
9. Use of the ultraphobic surface according to Claim 7 for the friction-reducing lining of vehicle bodies, aircraft fuselages or hulls of ships.
10. Use of the ultraphobic surface according to Claim 7 as self-cleaning coating or paneling of building structures, roofs, windows, ceramic construction material, e.g. for sanitary installations, household appliances.
11. Use of the ultraphobic surface according to Claim 7 as an antirust coating of metal objects.
12. Use of the ultraphobic surface according to Claim 7 as topcoat of transparent sheets, in particular glass and plastic sheets, in particular for solar cells, vehicles or greenhouses.